

Making better use of energy performance of buildings data

Data Privacy Impact Assessment (DPIA)



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Contents

Identifying the need for a DPIA	4
A description of the processing	5
The scope of the processing	7
The context of the processing	9
Describe the purposes of the processing	11
Consultation process	12
Assess necessity and proportionality	13
Identify and assess risks	17
Identify measures to reduce risk	19
Sign off and record outcomes	24
Published Data Items	25

Identifying the need for a DPIA

Project aims

The continued publication of Energy Performance of Buildings open data (EPB data) to support improvements in the energy efficiency of buildings in England and Wales.

Purpose of the Assessment

To ensure that processing of EPB data and any intended future publication of this data is compliant with the General Data Protection Regulation (GDPR) and other data protection legislation, including the Data Protection Act 2018.

The Ministry of Housing Communities and Local Government (MHCLG) has undertaken and published this DPIA to make sure we identify and minimise the data protection risk. MHCLG has already made a significant amount of personal data publicly accessible and it is aware that further processing of this data could be carried out using innovative technologies.

Making government data more accessible is in line with the government's agenda to empower citizens, foster innovation and reform public services. MHCLG considers there are significant benefits of publishing EPB data, these include:

- meeting the government's duties under the Environmental Information Regulations 2004, to progressively make environmental information available to the public
- informing the development of better policy making across Government, the public sector, and other sectors to support energy efficiency
- providing local authorities and other organisations contributing to the delivery of national climate change objectives with evidence to inform their plans
- supporting further research into issues like fuel poverty, climate change and building stock to identify innovative solutions and targeted interventions to improve energy effciency
- support Government to achieve its obligation of reducing emissions as set out in the Climate Change Act 2008
- encouraging innovation in the private sector to develop consumer applications that can enable informed consumer choice (e.g. integration of Energy Performance Certificates (EPC) into building sale and rental websites), an objective of the EU Directive on the energy performance of buildings

The published EPB data is drawn from EPCs for domestic and non-domestic buildings which are required when a building is constructed, sold or let and buildings occupied by public authorities with a Display Energy Certificate (DEC). Data secured through Air Conditioning Inspection Reports (ACIRs) are not part of the EPB data publication and are not considered in this DPIA.

For the purposes of this DPIA, MHCLG has treated the EPB data as personal data where the data set contains the address of the building. This is because that data, when

combined with other publicly available information, (e.g. the electoral register), which would disclose information relating to the individual concerned, (e.g. information about the building in which that person lives), could enable the occupier of the building to be identified.

This DPIA informs the decision on whether or what EPB data should/may be published and if the publication is necessary to perform a task in the public interest. It also considers the implications of further processing of EPB data by third parties once it has been published.

A description of the processing

The Nature of the Processing

The EPB data is collected by energy assessors for the purpose of producing EPCs for domestic and non-domestic buildings and DECs for public authority buildings. EPCs, and DECs are generated from the EPB data lodged on the Energy Performance of Buildings Registers ('the registers'). Landmark Information Group is the Keeper (operator) of the registers on behalf of MHCLG.

The registers currently hold EPB data for over 19 million EPCs and DECs lodged on the registers since 2008¹. EPCs and DECs are required by building owners to meet their statutory obligations.

Historic EPB data is currently available from a publicly accessible website (the government's Open Data platform²). Access requires users to register and accept standard terms and conditions of use and licensing conditions³. The terms and conditions outline the legal restriction on the use of EPB data, including prohibiting use of the addresses to support direct marketing, which is a breach of the licensing conditions and potentially Royal Mail's copyright. MHCLG does not enforce Royal Mail's copyright but would report any suspected copyright breaches directly to Royal Mail.

Aside from the acceptance to the terms and conditions, there is no formal mechanism at present to monitor for the unlawful use of the EPB data.

Prior to the online publication of data in 2016, MHCLG provided access to EPB data to a small number of 'authorised' users, such as local authorities and social housing providers. They used the EPB data to target energy efficiency improvements in properties. In 2016, MHCLG decided to publish EPB data on government's Open Data platform. Subsequently, the duties required in GDPR have triggered a review of that approach and we will undertake further reviews of our decision at the appropriate time. There continues to be significant interest in the ongoing release of EPB data at individual address level.

³ https://epc.opendatacommunities.org/docs/copyright

¹ https://www.gov.uk/government/collections/energy-performance-of-buildings-certificates

² https://epc.opendatacommunities.org/

MHCLG does not actively monitor the use of EPB data once it is in the public domain.

MHCLG does not publish EPB data where:

- the holder of the EPC, the owner of the building, or the occupier has 'opted-out' of disclosure
- there may be national security concerns
- energy certificates are marked as 'cancelled' or 'not for issue'
- where the DEC is identified as being undertaken voluntarily i.e. the regulations do not require an organisation to have one

EPB data where the above conditions apply is removed prior to the online publication of the dataset and from any subsequent online publications.

The most accurate sources for EPCs and DECs are the registers. The published EPB data is a snapshot in time and may have known and unknown errors and excludes those who have opted-out or have been excluded for the reasons set out previously.

Individuals have been known to claim an exemption to private rented sector minimum energy efficiency standards⁴, based on the published EPB data, without verifying the accuracy of the data with the registers. As a result, this may leave them open to challenge if they have relied upon inaccurate information. The department is considering ways of making it clearer to users that the most accurate sources for EPCs and DECs are the registers.

The types of processing that are identified as presenting a risk are as follows:

- previous EPB data releases have led to fewer than 20 complaints to MHCLG from members of the public about direct marketing of the provision of services based on published information about the building, such as maintenance contracts for photovoltaic panels, although it has not been possible to confirm that publication of EPB data led to direct marketing. MHCLG is considering ways of making it clearer that using EPB data for direct marketing is not permitted, unless advised otherwise by the building owner
- the energy efficiency rating is shown on an EPC and is required in marketing materials about the building. Relying on the published EPB data for this purpose may not reflect the building's current energy efficiency rating
- the published EPB data is the reference dataset for targeting poorly insulated homes as part of government's fuel poverty alleviation schemes. Grants and funding applications should use the most accurate and up-to-date information from the registers

In addition, the EPB data may provide more information about aspects of the building than that which may be viewable from the street. While this is not a personal data issue, it has been considered as it has previously been raised as a privacy concern.

⁴ https://www.gov.uk/government/publications/private-rented-sector-minimum-energy-efficiency-standard-exemptions/quidance-on-prs-exemptions-and-exemptions-register-evidence-requirements

The scope of the processing

What is the nature of the data and does it include special category or criminal offence data?

The published EPB data is drawn from EPCs issued for domestic and non-domestic buildings constructed, sold or let since 2008. Data from DECs also dates back to 2008. It provides information about the energy efficiency rating of domestic and non-domestic buildings, which including details about the fabric of the building, its size, the installed heating, lighting, cooling and ventilation equipment, any insulation present and the address of the building. There is no special category nor criminal offence data. There are no restrictions on who can access the published EPB data, the only requirements are registration and agreement to abide by the terms and conditions of use and licensing conditions.

EPB data is collected and held for statutory purposes. The EPB data is published with the aim of fullfilling a number of purposes which include:

- to improve environmental protection generally
- for analysis and research to directly support government policy on energy efficiency
- to inform analysis of government targets and activities and other government energy efficiency programmes
- to provide impartial information and advice to the owners or occupiers of private and public buildings with an EPC or a DEC to improve the energy efficiency of the building

In addition, there is a statutory requirement for (amongst other things):

- an EPC to be provided to a prospective buyer or tenant on sale or let of a domestic or non-domestic building
- buildings occupied by public authorities over 250 square metres and frequently visited by the public to have a DEC

All data fields, except for the address and postcode, are published under an Open Government Licence (OGL)⁵, which enables information providers in the public sector to license the re-use of their information under a common license.

The Energy Performance of Buildings (England and Wales) Regulations 2012 (the EPB Regulations) includes provisions which allow the EPB data to be published and specifies which data items can be published (see Glossary of current published EPB data items in Annex A, B and C). Data items on the registers can only be published and further processed if they are listed in the EPB Regulations.

7

⁵ http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

How much data will you be collecting and using?

The registers hold over 19 million individual records for buildings in England and Wales. The volume of data increases daily. The current EPB data represents approximately 5 billion individual data items. The EPB data for England and Wales only includes domestic and non-domestic buildings constructed, sold or newly let since 2008 and public authority buildings frequently visited by the public since 2008 (except where an opt-out applies or where a building has been excluded for the reasons set out previously). Therefore, the EPB data should not be interpreted as a true representation of the whole of the building stock in England and Wales.

The volume of processing by data users is unknown.

How often will MHCLG be publishing the data?

MHCLG will process and publish EPB data on a regular basis. The intention is to move to dynamic data updates over time, but initially publication will be 2 to 4 times a year.

How long will MHCLG keep it?

EPB data will be deleted 20 years from the date it was lodged on the registers. It will be removed from publication at the same time.

The EPB Regulations require the EPB data to be held for a period of 20 years from the date on which it was first lodged on the registers. MHCLG will continue to process and publish EPB data, except where the EPB data is not published for the reasons stated above, until the 20-year period has expired.

How many individuals are affected?

The exact number of individuals affected by MHCLG's decision to make EPB data publicly available is unknown. MHCLG does not collect additional information about the owners or occupiers of the building.

Based on the number of individual domestic EPCs, approximately 18 million individuals may be affected by processing of the data. However, this number includes:

- duplicate EPCs for the same building
- individuals that may be the owners of more than one building
- commercial buildings where the owner is not an individual or sole trader
- DEC data that is not considered personal data as it relates to a public building

What geographical area does it cover?

England and Wales. Devolved Administrations in Scotland and Northern Ireland have their own separate arrangements.

The context of the processing

What is the nature of your relationship with the individuals?

MHCLG has access to the EPB data that has been lodged on the registers where buildings are required to have an EPC or a DEC for a statutory purpose. MHCLG has no direct relationship with the individuals, businesses (or their agents) or organisations who commission EPCs or, in the case of DECs, public authorities. Nor does MHCLG have any relationship with those individuals or organisations who access and subsequently process EPB data.

How much control will they have?

Once the EPB data is in the public domain MHCLG and individuals to whom the data relates have no control over who has access to the EPB data or if the conditions of use are being applied correctly. In some instances, there is a public record of how the EPB data has been processed by individuals or organisations⁶. However, this is not the case in all circumstances and control of the published EPB data is limited. EPC holders have the right to request that their data is not publicly disclosed by opting-out of publication. New requests for opt-out⁷ will be accepted via the registers and the published data set will be revised periodically to remove opted-out EPCs.

Would they expect you to use their data in this way?

Since 2012 EPC and DECs that are generated from the EPB data lodged on the registers have included a Privacy Notice statements which explains how EPB data may be used, handled or processed. EPCs and DECs produced before April 2012 would have been lodged as a PDF document and will not include a Privacy Notice. The EPC Privacy Notice (DECs include similar text) states that:

'This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. Any personal data it contains will be processed in accordance with the General Data Protection Regulation and all applicable laws and regulations relating to the processing of personal data and privacy. For further information about this and how data about the property are used, please visit www.epcregister.com. To opt out of having information about your building made publicly available, please visit www.epcregister.com/optout.'

The Open Data Communities website includes a more detailed data protection notice⁸ which accompanes the published EPB data. MHCLG does not collect or hold any information on whether individuals are aware that the EPB data is published and further processed. Although, for example, as a valid EPC is required to advertise a property for sale or rent and must be provided to prospective buyers or renters it is reasonable to expect that the information on the EPC will be publically available. Additionally, the

⁷ https://www.epcregister.com/optout

⁶ https://houseprices.anna.ps/

⁸ https://epc.opendatacommunities.org/docs/protection

registers provide the opportunity to look up individual EPCs which have not been optedout of publication by searching for a specific address.

Do they include children or other vulnerable groups?

An EPC must not contain any information (except for the address of the building) from which a living individual (other than the energy assessor or his employer) can be identified. In the case of non-domestic EPCs or DECs for public authority buildings, it may be possible to identify the organisation that owns or occupies the building from the address. Organisation name is not recorded as part of the building address. However, in the case of an organisation that consists of dozens of on-site buildings that have a single postal address on a single site, the energy assessor may include additional information to uniquely identify a building. The published EPB data includes the full postal address, which may include an organisation name associated with a building. Therefore, it may be possible to identify buildings occupied by children and vulnerable groups from the published EPB data where this information is included in a building address. However, it should not be possible to identify any individual from the EPB data.

Are there prior concerns over this type of processing or security flaws?

MHCLG recognises that it is unable to track the use of EPB data once released and is aware of incidences of some direct marketing linked to the first EPB data release. It is not known if any vulnerable groups have been materially affected through targeted direct marketing.

Is it novel in any way?

EPB data has been previously published as open data. Additionally, there are a number of precedents for publication of addresses alongside building specific information. For example, planning applications data is published openly by local planning authorities under statute, including the name and address of the applicants, alongside plans of the building.

Companies House also publish address data on individuals and sole traders (as required by regulation) and the Driver and Vehicle Standards Agency publish driving license information and MOT data under Open Government License, although personal data is not published.

What is the current state of technology in this area?

The advent of new data technologies means that the published EPB data can be linked quickly and more easily to other publicly available information. The EPB data stored on the register's infrastructure has a built-in resiliency and high levels of data security to ensure MHCLG's requirement for a zero data loss environment is maintained. However, the EPB data is published in CSV and Excel format and there are no restrictions or technical mechanisms that prevent anyone from accessing and further processing the EPB data.

Are there any current issues of public concern that you should factor in?

Direct marketing is a form of advertising where organisations communicate directly with building owners or occupiers through a variety of media, including direct mailing, letters and fliers. The availability of new technologies is likely to make it easier to target individuals or vulnerable groups through direct marketing, although data users will be required to sign-up to terms and conditions of use and licensing conditions which will make it clear that this type of use is prohibited.

Are you signed up to any approved code of conduct or certification scheme (once any have been approved)?

MHCLG is not signed up to any approved code of conduct or certification scheme.

Describe the purposes of the processing

What do you want to achieve?

We want to enable more efficient delivery of work programmes and initiatives that support policy aims of increasing the energy efficiency of the building stock in England and Wales. These could include:

- improving environmental protection
- enabling analysis and research to directly support government policy objectives for increased energy efficiency of buildings and reduction of carbon dioxide emissions
- informed analysis of government targets and activities and underpinning other government energy efficiency programmes with accurate data
- providing impartial information and advice to the owners or occupiers of private and public buildings to improve energy efficiency or the operational efficiency of the buildings
- targeting energy efficiency intervention policies appropriately
- contributing to the government's Clean Growth Strategy⁹ and the success of the Grand Challenge Buildings Mission¹⁰.

What is the intended effect on individuals?

It is intended that the release of EPB data will benefit individuals indirectly by leading to policies and action that improves the energy efficiency of buildings - reducing energy consumption, minimizing energy bills, reducing fuel poverty and helping to decarbonise buildings leading to environmental benefits.

¹⁰ https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/missions#buildings

⁹ https://www.gov.uk/government/publications/clean-growth-strategy

What are the benefits of processing for you and more broadly?

Publishing address level EPB data from the EPB registers (for individual buildings or self-contained buildings, e.g. flats) can be used for analytics that can deliver improved energy outcomes. This includes, for example, easier assessment of the energy efficiency and the needs of housing stock in specific areas, the targeting of locations or groups of properties for specific interventions and for measuring the effectiveness of energy efficiency programmes at both a macro and micro level.

Consultation process

In 2010, prior to the release of EPB data, the Department for Communities and Local Government (DCLG, now MHCLG) issued a consultation document 'Making Better Use of Energy Performance Data'11. There were 140 responses leading to the publication of a 'Summary of Responses'12. Over 80% of respondents were in favour of the publication of address level EPB data.

In 2013, MHCLG published an Open Data Strategy¹³ which contained a commitment to publish full data from EPCs. In September 2013 MHCLG conducted a survey¹⁴ of 157 individuals and organisations who had previously expressed an interest in obtaining EPB data from the registers. The majority, some 90%, indicated the value and benefits of being able to identify the energy performance of individual properties in an area and 50% wanted a regular update of material e.g. monthly.

MHCLG also made a commitment in its 2014 Open Data Strategy to facilitate better access to EPB data. In March 2016, MHCLG published a Privacy Impact Assessment (PIA)¹⁵ to review the process which made 'bulk' data available to a limited number of 'authorised' recipients, with the intention of making EPB data more publicly accessible to a wider group of data users by publishing EPB data online. The PIA also considered an assessment of risk and the data protection principles in place at that time to ensure the sharing of personal data was justified on the basis that the benefits it would bring clearly outweighed the risks of negative effects provided it was supported by the appropriate safeguards. In March 2017, MHCLG concluded the benefits outweighed the risks and it was appropriate to enable wider access to the EPB data.

MHCLG took steps to publicise the changes in access arrangements and advertised the availability of the 'opt-out' process before publicising the EPB data release through appropriate press releases, social media and other means. A two-month period was

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/254495/131031_2013_DCLG_Open_ Data Strategy.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/399950/150126_EPB Data Survey.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/510273/EPB_data_privacy_impact_a ssessment.pdf

¹¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/8555/1491167.pdf

https://www.gov.uk/government/consultations/making-better-use-of-energy-performance-certificates-and-data

allowed from May 2016 before the EPB data was made publicly available to enable building owners or occupier to 'opt-out' their EPB data from the publication process.

MHCLG has consulted internally, including MHCLG's Data Protection Officer, data analysts and the Digital Land team about the inclusion of personal data within the published datasets. External groups including the Department for Business, Energy and Industrial Strategy and the Anonymisation Network ¹⁶ have also contributed to these discussions. After discussion with these groups, MHCLG considered techniques which would make identification of an individual more difficult (although not impossible) e.g. by changing the addresses in open data to a partial postcode to make identification more difficult, or by removing address level data.

Assess necessity and proportionality

What is the lawful basis for processing?

EPB data is published for the completion of a public task in accordance with GDPR Article 6(1)(e), in this case to improve the energy efficiency of buildings and help the government to achieve its duty under the Climate Change Act 2008¹⁷.

Does the processing actually achieve your purpose?

Use cases for published EPB data demonstrated that it quickly became a core reference dataset for energy performance programmes across the public and private sector when it was initially published in 2017.

Provision of EPB data at address level has enabled analytics making it possible to understand and tackle energy performance issues efficiently, at scale, at the level of individual properties, streets, communities, towns, and cities. Use of EPB data has enabled more efficient, less costly and quicker analysis by organisations wanting to identify potential cases of poor energy efficiency and specific solutions (e.g. insulation, new windows more efficient heating systems) which, in turn, allows more effective planning of interventions and the assessment of outcomes over time. Tracking the performance of these legitimate cases offers the opportunity to identify whether the processing achieves its purpose.

Although the EPB data has not been updated by MHCLG since the first publication, we are aware of examples where access to EPB data at an individual address level is necessary to enable processing for the purposes of achieving the policy objective of promoting greater enegy efficiency in buildings. For example, where the the EPB data data is used by statutory bodies such as local authorities and by housing associations to quickly assess and manage the energy efficiency of their housing stocks at scale rather than having to access individual records from the registers. Another example is where financial organisations use the EPB data as part of the intial assessment process for the provision of green loans to improve the energy efficiency of buildings. To do this at

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¹⁶ http://ukanon.net/

¹⁷ https://www.legislation.gov.uk/ukpga/2008/27/contents

scale requires access to multiple address level EPCs. Although individual PDF records are available from the registers (the definitive source for all EPCs), accessing single records does not bring economies of scale that the published EPB data can facilitate. This inhibits progress and access to green finance which is an important source of investment for increasing the number of energy efficient buildings.

Is there another way to achieve the same outcome?

There is no way to achieve the same positive outcomes, highlighted above and in the annex, other than by publishing EPB data. However, there are opportunities for MHCLG to further address privacy concerns by changing the format of the EPB data publication. For example, introducing:

- more rigorous end user licences
- different levels of access for different types of user with appropriate data sharing protocols
- removing personal data (addresses) from the data

However, the omission of addresses, or restricting access of data to statutory bodies, such as local authorities, would significantly detract from the value of the EPB data to its users.

From the examples of EPB data use (set out above), it is clear that efficient processing requires address level EPB data in order to identify individual properties with poor energy efficiency ratings to target and support action. Without address level information, it is not possible to analyse housing stock at scale to understand the specific needs of the property and to target the appropriate intervention. Without address level information it is also impossible for researchers to effectively measure outcomes over time and to analyse which interventions are most effective at improving the energy efficiency of poorly performing building stock, or to support the transition to a decarbonised energy system. We conclude from the use cases that without addresses the EPB data would be of limited value, holding back innovation that seeks to improve the energy efficiency of buildings.

MHCLG's conclusion is that the objectives it is trying to achieve by publishing EPB data could only be partially met without the publication of address level data and its removal would would devalue the EPB data.

How will you prevent function creep?

Data users wishing to access the EPB data are required to accept the terms and conditions of use and the licencing conditions and are responsible for complying with them. However, MHCLG cannot monitor or prevent function creep once the EPB data is in the public domain. There is no mechanism for monitoring data use once the EPB data has been downloaded and further processed by data users.

How will you ensure data quality and data minimisation?

Primary responsibility for the robustness and accuracy of the EPB data in relation to individual buildings lies with the energy assessor who carried out the energy assessment. Additional validation checks are undertaken as the EPB data is lodged on the registers and improved quality assurance procedures for energy assessor accreditation schemes have been introduced, including revised Scheme Operating Requirements (SORs). Accreditation Schemes are independently audited on a regular basis to ensure they comply with the SORs. Improving the quality and consistency of both EPCs and DECs to ensure that they provide accurate and consistent information to building owners and occupants is an important part of this process.

The EPB data cannot be altered once it has been lodged on the registers, although it can be marked at 'not for issue' or 'cancelled' for a range of reasons. Neither MHCLG nor the register operator see the building or become involved in the assessment process to which the EPB data relates and cannot therefore confirm which EPB data is accurate. The EPB data is published without any changes or alterations. Data users are asked to recognise that there may be anomalies in the published datasets.

MHCLG has continued to offer the ability for EPC holders to opt-out of the publication of EPB data (except for DECs which must be publicly displayed).

The EPB data also contains personal data relating to the energy assessor who carried out the energy assessment. MHCLG has no intention of making this personal data available as open data.

What information will you give individuals?

MHCLG includes information about the lawful basis (or bases, if more than one applies) in the data protection notice on the Open Data website. Under the transparency provisions of the GDPR, the information includes:

- the intended purposes for processing the personal data
- the lawful basis for the processing

Additionally, MHCLG will also publicise its intention to publish EPB data in advance of the data release which will provide individuals the option to opt-out (where appropriate).

How will you give them this information?

There is a Privacy Notice on the EPCs and DECs (referred to above) and a more detailed data protection notice on the Open Data Communities website.

How will you help to support their rightsand what measures do you take to ensure processors comply?

MHCLG will uphold its responsibilities by reporting any notifiable instances of EPB data mis-use to the Information Commissioner's Office (ICO)¹⁸ and will take the appropriate action against accreditation schemes for misusing the EPB data. However, MHCLG cannot monitor wider instances of EPB data misuse and action can only be taken where issues have been reported to MHCLG.

How do you safeguard any international transfers?

We do not intend to make any international transfers of EPB data originating from the registers. Users would be required to sign up to terms and conditions of use and licensing conditions before accessing the EPB data. MHCLG will require anyone using the EPB data to commit to safeguarding the EPB data, including in respect of data accessed from a third country.

¹⁸ https://ico.org.uk/

Identify and assess risks

Describe the source of risk and nature of potential impact on individuals. Include associated compliance and corporate risks as necessary.	Likelihood of harm	Severity of harm	Overall risk
	Remote, possible or probable	Minimal, significant or severe	Low, medium or high
1. Directing Marketing of individuals using publicly accessible EPB data. Since the initial EPB data release, MHCLG has evidence of direct marketing linked to the EPB data. Generally, the direct marketing complaints relate to the provision of services by third parties using the published data. For example, providing misleading offers and inducements to replace the heating system 'free of charge' or to purchase maintenance contracts for photovoltaic panels, because the PV installers had gone into liquidation. In the first case, the oil boiler identified in the published data had been replaced several years previously. In the case of the PV panels, they were purchased by the home owner on the basis that they were maintenance free.	Possible	Minimal	Medium
MHCLG's view is that any data user who downloads EPB data becomes the Data Controller for the EPB data they possess so will need to satisfy themselves that they have a basis for processing the data. In particular, any data user who wishes to use the data for direct marketing should secure the consent of the 'data subject' before using the publicly accessible data in this way. Also, data users would need to satisfy themselves that they have appropriate licenses in relation to the use of Royal Mail address data.			
There is an evident risk that EPB data will be mis-used. However, the harm to the data subjects is minimal and it is MHCLG's view that the benefits overall are			

sufficient to warrant the publication of the EPB data. Third party users remain responsible for compliance with usage conditions.			
2. Property Security Publication of some features of a property such as its wall construction or external window specification could, theoretically, increase the threat of burglary for some properties where it is linked to an address. However, similar data was previously released for very many properties in the 2017 EPB data publication on the Open Data Communities website and no link has been identified between that data release and burglaries. In considering this risk, MHCLG has also taken into account that images of many properties are viewable on line for example at Google Street View or through sites offering buildings for sale or let which provide information about the location of a building, internal and external photos often including details of doors and windows, online mapping tools and a partial address without the need to register and are assessed as providing a greater security risk than published EPB data which is a snapshot in time (at the point the EPC/DEC was conducted) and may not reflect the current state of security at a property. Owners or occupiers of buildings who have concerns about how their EPB data could also opt-out of publication.	Remote	Significant	Low

Identify measures to reduce risk

Identify additional measures you could take to reduce or eliminate risks identified as medium or high risk in step 5

Risk	Options to reduce or eliminate risk	Effect on risk	Residual risk	Measure approved
		Eliminated, reduced or accepted	Low, medium or high	Yes/no
1	Data user registration process MHCLG has carefully considered the issue of direct marketing and in order to mitigate the risks associated with the 'direct marketing' of individuals, data users are required to complete a data user registration process and acknowledge that they have understood and will comply with the terms of the GDPR in relation to any personal data contained in (or derived from) the data as well as accepting the terms of the Royal Mail copyright notice and other licensing conditions. MHCLG will further review its terms of use for EPB data to ensure that it is made clear to users that direct marking without direct consent is not permitted.	Reduce	Medium	Yes
	Additionally, all address level data is subject to Royal Mail's Intellectual Property Rights and is only released to those accepting the Royal Mail's copyright notice. The copyright notice is based on the data being used for a specific purpose related to the energy performance of buildings.			

	MHCLG has used these safeguards in conjunction with the 2017 EPB data release and has received fewer than 20 complaints of direct marketing. We do, however, accept that these measures may not prevent inappropriate data use by determined individuals and companies, but by accepting terms and conditions of use during the registration process data users cannot claim not to have been aware of that conditions applied to the use of EPB data. Once the EPB data has passed into the public domain MHCLG is unable to monitor its use nor can it take action against individuals who may use the EPB data inappropriately. MHCLG will, nevertheless: • record all reported instances of data mis-use • report any mis-use of personal data to the ICO • report any use of the address data, which appears to infringe the copyright notice or licensing restrictions, to Royal Mail.			
	If data mis-use becomes a significant issue, MHCLG will revisit its decision to publish EPB data in its current format by periodically reviewing this DPIA or when any new evidence is presented.			
1	Anonymisation of the published data The risks of direct marketing and reputational risk identified above relating to the publication of address level data could be mitigated by redacting part or all of the address data. Reducting the address to a partial postcode would make property identification more difficult, but not impossible. It would also make achieving the objectives of publishing the EPB data much more difficult as the EPB data would be ineffective for any organisation relying on address data to identify individual properties, such as local authorities, energy suppliers and housing providers	Reduce	Low	No

1	Different levels of data access for different types of data users	Reduce	Low	No
	It may be possible to mitigate some of the risks of direct marketing and reputational damage by creating and applying a hierarchy of access which limits access to parts of the data for some users and provides full access for others, effectively giving a level of access according to the nature of the organisation requesting access.			
	This has been given careful consideration and is problematic for the following reasons:			
	 creating a hierarchy of access may be complex and regarded as contentious. It would require clear and transparent criteria and potentially an appeals process for organisations whose applications were refused. 			
	 managing access on an ongoing basis to add or removing access rights would create a new, additional administrative cost on the EPB data service which would be borne by those commissioning EPCs, DECs. 			
	If this approach were taken, all users would stil be required to register and sign up to the terms and conditions of use and the acceptance of restrictions on use of associated licences that we have used to date and would continue to use for future EPB data releases. It would, therefore, be simpler to rely upon the effectiveness of that undertaking than to introduce a potentially complex process.			
1	Consent of the data subject	Reduce	Medium	No
	MHCLG does not currently rely on the data subject's affirmative 'consent' to publish the address data - it is published to perform a task carried out in the public interest.			

	Securing the consent of the data subject would involve contacting over 19 million domestic and non-domestic (where there are 'sole' traders) property addresses which is costly, impracticable and unmanageable.			
	The costs will be significant and there would be no guarantee of a significant number of responses. Clear records would need to be kept of the consent. The process would be resource intensive. Consent must be capable of just as easily being withdrawn.			
	Going forward, it is likely that securing the consent of the 'data subject' will be problematic. In the majority of cases, the owner will not be present when the energy assessor visits the building to produce the EPC. Also, it is likely the EPC will be commissioned on behalf of the owner by a person acting on their behalf, i.e. the estate or letting agent.			
	It is likely that the person who sells or rents out the building may not be the long-term occupier of the building. If consent is given at the time the EPC is produced, the building is likely to have been sold or rented out to a different person since that consent was given.			
	Any third party that acquires published EPB data must also commit to ensure it is processed in accordance with data protection legislation.			
1	Publicising the data release to allow EPC holders the opportunity to 'opt-out' MHCLG does not currently rely on the data subject's affirmative 'consent' to publish the address data - it is published to perform a task carried out in the public interest.	Reduce	Low	Yes

We recognised that the holders of EPCs may have concerns about their building information being made publicly available. Therefore, holders of EPCs may wish to consider the right to opt-out the data about the building they own or occupy from the EPB data releases. Holders of EPCs may opt-out at any time here: https://www.epcregister.com/optout.

Additionally, MHCLG undertakes to publicise each EPB data release in advance of the data being made publicly available in order to allow the holders of EPC a further opportunity to consider opting-out their data. Opt-out will only be of limited value in preventing inappropriate data use or restricting access to personal data.

Sign off and record outcomes

Item	Name/date	Notes
Measures approved by:	Chandru Dissanayeke, 19 June 2019.	Integrate actions back into project plan, with date and responsibility for completion
Residual risks approved by:		If accepting any residual high risk, consult the ICO before going ahead
DPO advice provided:	Maewyn Cumming, 14 June 2019.	DPO should advise on compliance, step 6 measures and whether processing can proceed
·	e: The measures proposed should be sufficient to mining. PR. It is my opinion that the benefits of publishing this conted direct marketing.	•
DPO advice accepted	Chandru Dissanayeke, 19 June 2019.	If overruled, you must explain your reasons
Comments:		
Consultation responses reviewed by:		If your decision departs from individuals' views, you must explain your reasons
Comments:		
This DPIA will be kept under review by:	Energy Performance of Buildings Data team / MHCLG	The DPO should also review ongoing compliance with DPIA

Published Data Items

Annex A

Glossary: Domestic EPCs

FIELD	DATATYPE	DESCRIPTION
LMK_KEY	STRING	Individual lodgement identifier
ADDRESS1	STRING	Address Line 1
ADDRESS2	STRING	Address Line 2
ADDRESS3	STRING	Address Line 3
POSTCODE	STRING	Postcode for the property address
BUILDING_REFERENCE_NUMBER	STRING	Unique identifier for the property
CURRENT_ENERGY_RATING	STRING	Current energy rating converted into a linear 'A to G' rating (where A is the most energy efficient and G is the least energy efficient)
POTENTIAL_ENERGY_RATING	STRING	Estimated potential energy rating converted into a linear 'A to G' rating (where A is the most energy efficient and G is the least energy efficient)
CURRENT_ENERGY_EFFICIENCY	INTEGER	Based on cost of energy, i.e. energy required for space heating, water heating and lighting [in kWh/year] multiplied by fuel costs. (£/m2/year where cost is derived from kWh).
POTENTIAL_ENERGY_EFFICIENCY	INTEGER	The potential energy efficiency rating of the property.
PROPERTY_TYPE	STRING	Describes the type of property being inspected. One of house; flat; bungalow; maisonette; park home (from 2015 only)
BUILT_FORM	STRING	Together with 'property type' provides structured description of the property. One of detached; semi-detached; mid-terrace; end-terrace; enclosed mid-terrace; enclosed end-terrace

INSPECTION_DATE	DATE	The date that the inspection was actually carried out by the energy assessor.
LOCAL_AUTHORITY	STRING	ONS code. Local authority area in which the property is located
CONSTITUENCY	STRING	ONS code. Parliamentary constituency in which the property is located
COUNTY	STRING	County in which the property is located (where applicable)
LODGEMENT_DATE	DATE	Date lodged on the Energy Performance of Buildings Register
TRANSACTION_TYPE	STRING	Type of transaction that triggered EPC. For example, one of: marketed sale; non-marketed sale; rental; not sale or rental; assessment for Green Deal; following Green Deal; FIT application; none of the above; RHI application; ECO assessment. Where the reason for the assessment is unknown by the nervy assessor the transaction type will be recorded as 'none of the above'. Transaction types may be changed over time.
ENVIRONMENT_IMPACT_CURRENT	INTEGER	The Environmental Impact Rating. A measure of the property's current impact on the environment in terms of carbon dioxide (CO2) emissions. The higher the rating the lower the CO2 emissions. (CO2 emissions in tonnes / year)
ENVIRONMENT_IMPACT_POTENTIAL	INTEGER	The potential Environmental Impact Rating. A measure of the property's potential impact on the environment in terms of carbon dioxide (CO2) emissions after improvements have been carried out. The higher the rating the lower the CO2 emissions. (CO2 emissions in tonnes / year)
ENERGY_CONSUMPTION_CURRENT	FLOAT	Estimated total energy consumption for the property in a 12 month period (kWh/m2)
ENERGY_CONSUMPTION_POTENTIAL	FLOAT	Estimated potential total energy consumption for the property in a 12 month period (kWh/m2)
CO2_EMISSIONS_CURRENT	FLOAT	CO2 emissions per year in tonnes/year.
CO2_EMISS_CURR_PER_FLOOR_AREA	FLOAT	CO2 emissions per square metre floor area per year in kg/m².
CO2_EMISSIONS_POTENTIAL	FLOAT	Estimated value in tonnes per year of the total CO2 emissions produced by the property over a 12 month period.
LIGHTING_COST_CURRENT	FLOAT	GBP. Current estimated annual energy costs for lighting the property.
LIGHTING_COST_POTENTIAL	FLOAT	GBP. Potential estimated annual energy costs for lighting the property after improvements have been made.

HEATING_COST_CURRENT	FLOAT	GBP. Current estimated annual energy costs for heating the property.
HEATING_COST_POTENTIAL	FLOAT	GBP. Potential annual energy costs for lighting the property after improvements have been made.
HOT_WATER_COST_CURRENT	FLOAT	GBP. Current estimated annual energy costs for hot water
HOT_WATER_COST_POTENTIAL	FLOAT	GBP. Potential estimated annual energy costs for hot water after improvements have been made.
TOTAL_FLOOR_AREA	FLOAT	The total useful floor area is the total of all enclosed spaces measured to the internal face of the external walls, i.e. the gross floor area as measured in accordance with the guidance issued from time to time by the Royal Institute of Chartered Surveyors or by a body replacing that institution. (m2)
ENERGY_TARIFF	STRING	Type of electricity tariff for the property, e.g. single.
MAINS_GAS_FLAG	Y / N FLAG	Whether mains gas is available. Yes means that there is a gas meter or a gas-burning appliance in the dwelling. A closed-off gas pipe does not count.
FLOOR_LEVEL	STRING	Flats and maisonettes only. Floor level relative to the lowest level of the property (0 for ground floor). If there is a basement, the basement is level 0 and the other floors are from 1 upwards
FLAT_TOP_STOREY	Y / N FLAG	Whether the flat is on the top storey
FLAT_STOREY_COUNT	INTEGER	The number of storeys in the apartment block.
MAIN_HEATING_CONTROLS	STRING	Type of main heating controls. Include for both main heating systems if there are two.
MULTI_GLAZE_PROPORTION	INTERGER	Percentage. Glazed areas. The multiple-glazed percentage is calculated on the basis of the area and type of each window or roof window
GLAZED_TYPE	INTEGER	The type of glazing. From British Fenestration Rating Council or manufacturer declaration, give as one of; single; doubl; triple.
GLAZED_AREA	STRING	Ranged estimate of the total glazed area of the habitable areas of the property.
EXTENSION_COUNT	INTERGER	The number of extensions added to the property. Between 0 and 4.

NUMBER_HABITABLE_ROOMS	INTERGER	Habitable rooms include any living room, sitting room, dining room, bedroom, study and similar; and also a non-separated conservatory. A kitchen/diner having a discrete seating area (with space for a table and four chairs) also counts as a habitable room. A non-separated conservatory adds to the habitable room count if it has an internal quality door between it and the dwelling. Excluded from the room count are any room used solely as a kitchen, utility room, bathroom, cloakroom, en-suite accommodation and similar; any hallway, stairs or landing; and also any room not having a window.
NUMBER_HEATED_ROOMS	INTERGER	A heated room is one with a fixed heat emitter in the room.
LOW_ENERGY_LIGHTING	INTERGER	Percentage of low energy lighting present in the property as a percentage of the total fixed lights in the property. '0' indicates that no low-energy lighting is present in the building.
NUMBER_OPEN_FIREPLACES	INTERGER	The number of Open Fireplaces in the building. An open fireplace is a fireplace that still allows air to pass between the inside of the property and the outside.
HOTWATER_DESCRIPTION	STRING	HOT WATER. Overall description of property feature.
HOT_WATER_ENERGY_EFF	STRING	HOT WATER. Energy efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
HOT_WATER_ENV_EFF	STRING	HOT WATER. Environmental efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
FLOOR_DESCRIPTION	STRING	FLOOR. Overall description of property feature
FLOOR_ENERGY_EFF	STRING	FLOOR. Energy efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
FLOOR_ENV_EFF	STRING	FLOOR. Environmental efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
WINDOWS_DESCRIPTION	STRING	WINDOWS. Overall description of property feature
WINDOWS_ENERGY_EFF	STRING	WINDOWS. Energy efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
WINDOWS_ENV_EFF	STRING	WINDOWS. Environmental efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.

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WALLS_DESCRIPTION	STRING	WALLS. Overall description of property feature
WALLS ENERGY EFF	STRING	WALLS. Energy efficiency rating. One of: very good; good; average; poor; very poor.
		On actual energy certificate shown as one to five-star rating.
WALLS_ENV_EFF	STRING	WALLS. Environmental efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
		SECONDARY HEATING. Overall description of property feature. None if no secondary
SECONDHEAT_DESCRIPTION	STRING	heating.
SHEATING_ENERGY_EFF	STRING	SECONDARY HEATING. Energy efficiency rating. One of: very good; good; average;
OFFERTING_ENERGY_EFT	STRING	poor; very poor. On actual energy certificate shown as one to five-star rating.
SHEATING ENV EFF	STRING	SECONDARY HEATING. Environmental efficiency rating. One of: very good; good;
SHEATING_ENV_EIT	STRING	average; poor; very poor. On actual energy certificate shown as one to five-star rating.
ROOF DESCRIPTION	STRING	ROOF. Overall description of property feature
Treet _Bleetin freit	OTT WITE	
ROOF_ENERGY_EFF	STRING	ROOF. Energy efficiency rating. One of: very good; good; average; poor; very poor. On actual energy certificate shown as one to five-star rating.
		ROOF. Environmental efficiency rating. One of: very good; good; average; poor; very
ROOF_ENV_EFF	STRING	poor. On actual energy certificate shown as one to five-star rating.
MAINHEAT_DESCRIPTION	STRING	MAIN HEATING. Overall description of property feature
MAINIJEAT ENERGY FEE	CTDING	MAIN HEATING. Energy efficiency rating. One of: very good; good; average; poor; very
MAINHEAT_ENERGY_EFF	STRING	poor. On actual energy certificate shown as one to five-star rating.
MANNUEAT ENV EEE	STRING	MAIN HEATING. Environmental efficiency rating. One of: very good; good; average;
MAINHEAT_ENV_EFF	STRING	poor; very poor. On actual energy certificate shown as one to five-star rating.
MAINHEATCONT_DESCRIPTION	STRING	MAIN HEATING CONTROLS. Overall description of property feature
WAINTILATOONT_DESCRIPTION	STRING	IVIAIN FILATING CONTROLS. Overall description of property leadure
MAINHEATC_ENERGY_EFF	STRING	MAIN HEATING CONTROLS. Energy efficiency rating. One of: very good; good;
	OTTAING	average; poor; very poor. On actual energy certificate shown as one to five-star rating.
		MAIN HEATING CONTROLS. Environmental efficiency rating. One of: very good;
MAINHEATC_ENV_EFF	STRING	good; average; poor; very poor. On actual energy certificate shown as one to five-star
		rating.

LIGHTING DESCRIPTION	STRING	LIGHTING. Overall description of property feature. Total number of fixed lighting outlets
	01111110	and total number of low-energy fixed lighting outlets
LIGHTING ENERGY EFF	STRING	LIGHTING. Energy efficiency rating. One of: very good; good; average; poor; very poor.
EIGITINO_ENERGI_EIT	OTTAINO	On actual energy certificate shown as one to five-star rating.
LIGHTING_ENV_EFF	STRING	LIGHTING. Environmental efficiency rating. One of: very good; good; average; poor;
LIGITING_LIV_LIT	STRING	very poor. On actual energy certificate shown as one to five-star rating.
MAIN_FUEL	STRING	The type of fuel used to power the central heating; Main Gas; LPG; Electricity; Oil; etc.
WIND_TURBINE_COUNT	INTERGER	Number of wind turbines at the property. 0 if none.
HEAT LOSS CORRIDOOR	STRING	Flats and maisonettes only. Indicates that the flat contains a corridor through which
HEAT_LOSS_CORRIDOOR	STRING	heat is lost. Heat loss corridor, one of: no corridor; heated corridor; unheated corridor
LINUEATED CORRIDOR LENGTH	FLOAT	Only populated if flat or maisonette contains unheated corridor. If unheated corridor,
UNHEATED_CORRIDOR_LENGTH	FLOAT	length of sheltered wall (m2).
EL COD LIEIGUT	FLOAT	
FLOOR_HEIGHT	FLOAT	Storey height. Average height of the storey in metres.
		Percentage of photovoltaic area as percentage of total roof area. 0% indicates that a
PHOTO_SUPPLY	INTERGER	photovoltaic supply is not present in the property.
SOLAD WATER HEATING ELAC	V/NLELAC	
SOLAR_WATER_HEATING_FLAG	Y/N FLAG	Indicates whether the heating in the property is solar powered.
MECHANICAL_VENTILATION	STRING	Identifies the type of mechanical ventilation the property has.
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Annex B

Glossary: Non-domestic EPCs

FIELD	DATATYPE	DESCRIPTION
LMK_KEY	STRING	Individual lodgement identifier
ADDRESS1	STRING	Address Line 1
ADDRESS2	STRING	Address Line 2
ADDRESS3	STRING	Address Line 3
POSTCODE	STRING	Postcode for the building address
BUILDING_REFERENCE_NUMBER	STRING	Unique identifier for the building
ASSET_RATING	INTEGER	Energy Performance Asset Rating. The CO ₂ emissions from the actual building in comparison to a Standard Emission Rate. (kg/CO ₂ /m ²)
ASSET_RATING_BAND	STRING	Energy Performance Asset Rating converted into an energy band/grade into a linear 'A+ to G' scale (where A+ is the most energy efficient and G the least energy efficient)
PROPERTY_TYPE	STRING	Describes the type of building that is being inspected. Based on planning use class.
INSPECTION_DATE	DATETIME	The date that the inspection was actually carried out by the energy assessor.
LOCAL_AUTHORITY	STRING	Office for National Statistics (ONS) code. Local authority area in which the building is located
CONSTITUENCY	STRING	ONS code. Parliamentary constituency in which the building is located
COUNTY	STRING	County in which the building is located (where applicable)
LODGEMENT_DATE	DATETIME	Date lodged on the Energy Performance of Buildings Register
TRANSACTION_TYPE	STRING	Type of transaction that triggered EPC. Transaction types may be changed over time.
NEW_BUILD_BENCHMARK	STRING	The Benchmark value if the building was newly built.
EXISTING_STOCK_BENCHMARK	STRING	The Benchmark value of existing stock for this type of building

BUILDING_LEVEL	STRING	Building Complexity Level based on Energy Assessor National Occupation Standards.
MAIN_HEATING_FUEL	STRING	Main Heating fuel for the building is taken as the fuel which delivers the greatest total thermal output for space or water heating.
OTHER_FUEL_DESC	STRING	Text description of unspecified fuel type if 'Other' is selected for Main Heating Fuel.
SPECIAL_ENERGY_USES	STRING	Special energy uses discounted. This only appears on the Recommendations Report.
RENEWABLE_SOURCES	STRING	On-site renewable energy sources. This only appears on the Advisory Report.
FLOOR_AREA	FLOAT	The total useful floor area is the total of all enclosed spaces measured to the internal face of the external walls, i.e. the gross floor area as measured in accordance with the guidance issued from time to time by the Royal Institute of Chartered Surveyors or by a body replacing that institution. (m²)
STANDARD_EMISSIONS	FLOAT	Standard Emission Rate is determined by applying a fixed improvement factor to the emissions from a reference building. (kgCO ₂ /m ² /year).
TARGET_EMISSIONS	FLOAT	The target emission rate is the minimum energy performance requirement (required by Building Regulation) for a new non-domestic building (kgCO ₂ /m ² /year).
TYPICAL_EMISSIONS	FLOAT	Typical Emission Rate.
BUILDING_EMISSIONS	FLOAT	Building Emissions Rate. Annual CO ₂ emissions from the building. Decimal (kg/CO ₂ /m ²)
AIRCON_PRESENT	Y/N FLAG	Air Conditioning System. Does the building have an air conditioning system?
AIRCON_KW_RATING	INTEGER	Air conditioning System. Rating in kW
ESTIMATED_AIRCON_KW_RATING	INTEGER	Air Conditioning System. If exact rating unknown, what is the estimated total effective output rating of the air conditioning system

		One of:1=Yes, inspection completed; 2=Yes, inspection
AC_INSPECTION_COMMISSIONED	INTEGER	commissioned; 3=No inspection completed or commissioned;
		4=Not relevant; 5=Don't know
		Building environment which is taken as the servicing strategy
BUILDING_ENVIRONMENT	STRING	that contributes the largest proportion of the building's CO ₂
		emissions.

Annex C

Glossary: DECs

FIELD	DATATYPE	DESCRIPTION	COMMENTS
LMK_KEY	STRING	Individual lodgement identifier	
ADDRESS1	STRING	Address Line 1	
ADDRESS2	STRING	Address Line 2	
ADDRESS3	STRING	Address Line 3	
POSTCODE	STRING	Postcode for the building address	
BUILDING_REFERENCE_NUMBER	STRING	Unique identifier for the property	
CURRENT_OPERATIONAL_RATING	INTEGER	Current Operational Rating (OR) for this building. A numeric indicator of the amount of energy consumed during the occupation of the building over a period of 12 months. An OR is a measure of the annual (CO ₂) emission per unit of area of the building caused by its consumption of energy, compared to a value that would be considered typical for the particular type of building. The numbers do not represent actual units of energy consumed; they represent comparative energy efficiency.	
YR1_OPERATIONAL_RATING	INTEGER	Operational Ratings from previous years (CO ₂).	For buildings where the total useful floor area over 250m ² and up to 1,000m ² the
YR2_OPERATIONAL_RATING	INTEGER	J J J J J J J J J J J J J J J J J J J	validity period of the DEC is 10 years. In these circumstances this field may be 'blank'.
OPERATIONAL_RATING_BAND	STRING	Current Operational Rating converted into an energy band/grade into a linear 'A to G' scale (where A is the most energy efficient and G the least energy efficient).	
ELECTRIC_CO2	INTEGER	Total CO ₂ emissions from electricity. The energy used by the building is converted into an amount of carbon dioxide (CO ₂). Different types of fuel emit different amounts of CO ₂ . Total CO ₂ emissions in tonnes per year of CO ₂ .	

			,	
HEATING_CO2	INTEGER	Total CO ₂ emissions from heating. The energy used by the building is converted into an amount of carbon dioxide (CO ₂). Different types of fuel emit different amounts of CO ₂ . Total CO ₂ emissions in tonnes per year of CO ₂ .		
RENEWABLES_CO2	INTEGER	Total CO ₂ emissions from Renewable sources. On-Site Renewables (OSR) include technologies that generate heat or electricity from ambient sources and have zero (or near zero) CO ₂ emissions. The energy they deliver reduces CO ₂ emissions from the building.		
PROPERTY_TYPE	STRING	Describes the type of building that is being inspected.		
INSPECTION_DATE	DATE	The date that the inspection was actually carried out by the Energy Assessor		
LOCAL_AUTHORITY	STRING	Office for National Statistics (ONS) code. Local authority area in which the building is located		
CONSTITUENCY	STRING	ONS code. Parliamentary constituency in which the building is located		
COUNTY	STRING	County in which the building is located (where applicable)		
LODGEMENT_DATE	DATE	Date lodged on the Energy Performance of Buildings Register		
MAIN_BENCHMARK	STRING	The benchmark is the average energy performance for a building of this type, under a number of standardised conditions for temperature, occupancy and proportion of non-electrical energy used. Under certain circumstances, these benchmarks may be adjusted according to location, occupancy and the ratio of non-electrical energy used.		
MAIN_HEATING_FUEL	STRING	This indicates the main type of fuel used to heat the building.		
OTHER_FUEL	STRING	Text description of unspecified fuel type if 'Other' is selected for Main-Heating-Fuel.		
SPECIAL_ENERGY_USES	STRING	Separable energy uses. The aim of the Operational Rating is to compare the annual energy consumption of the building with that of a building typical of its type. In some circumsatnces the building may include activities that consume energy and which are not considered typical of that building type. It may be reasonable to subtract these separable energy uses in certain circumstances. In order to be able to isolate and remove the annual separable energy consumption from the total, any separable energy uses must		

		be separately metered. This only appears on the Advisory Report.	
RENEWABLE_SOURCES	STRING	On-site renewable energy sources. This only appears on the Advisory Report.	
TOTAL_FLOOR_AREA	FLOAT	Total Useful Floor Area (M²)	
ANNUAL_THERMAL_FUEL_USAGE	INTEGER	Annual Energy Use (kWh/m2/year) for heating	
TYPICAL_THERMAL_FUEL_USAGE	INTEGER	Typical Energy Use (kWh/m2/year) for heating	
ANNUAL_ELECTRICAL_FUEL_USAGE	INTEGER	Annual Energy Use (kWh/m2/year) for electricity	
TYPICAL_ELECTRICAL_FUEL_USAGE	INTEGER	<u> </u>	
RENEWABLES_FUEL_THERMAL	FLOAT	Percentage of energy obtained from on-site renewable sources for heating (if any)	
RENEWABLES_ELECTRICAL	FLOAT	Percentage of energy obtained from on-site renewable sources for electricity (if any).	
YR1_ELECTRICITY_CO2	INTEGER	CO ₂ emissions from electricity in previous reporting year (if any). Total CO ₂ emissions in tonnes per year of CO ₂ .	
YR2_ELECTRICITY_CO2	INTEGER	CO ₂ emissions from electricity in previous reporting year (if any). Total CO ₂ emissions in tonnes per year of CO ₂ .	For buildings where the total
YR1_HEATING_CO2	INTEGER	CO ₂ emissions from heating in previous reporting year (if any). Total CO ₂ emissions in tonnes per year of CO ₂ .	useful floor area over 250m ² and up to 1,000m ² the validity period of the DEC is
YR2_HEATING_CO2	INTEGER	CO ₂ emissions from heating in previous reporting year (if any). Total CO ₂ emissions in tonnes per year of CO ₂ .	10 years. In these circumstances this field may
YR1_RENEWABLES_CO2	INTEGER	CO_2 emissions from renewable sources in previous reporting year (if any). Total CO_2 emissions in tonnes per year of CO_2 .	be 'blank'.
YR2_RENEWABLES_CO2	INTEGER	CO_2 emissions from renewable sources in previous reporting year (if any). Total CO_2 emissions in tonnes per year of CO_2 .	
AIRCON_PRESENT	Y/N FLAG	Air Conditioning System. Does the building have an air conditioning system?	
AIRCON_KW_RATING	INTEGER	<u> </u>	
ESTIMATED_AIRCON_KW_RATING	INTEGER	Air Conditioning System. If exact rating unknown, what is the estimated total effective output rating of the air conditioning system in kW.	

AC_INSPECTION_COMMISSIONED	INTEGER	One of:1=Yes, inspection completed; 2=Yes, inspection commissioned; 3=No inspection completed or commissioned; 4=Not relevant; 5=Don't know	
BUILDING_ENVIRONMENT	STRING	Building environment which is taken as the servicing strategy that contributes the largest proportion of the building's CO ₂ emissions.	
BUILDING_CATEGORY	STRING	Building category codes (described below). This data field may contain multiple benchmark categories. Where a building has a mix of uses that would place parts of the building in a different benchmark category, it is possible to construct a composite benchmark, e.g. a school with a swimming pool.	
Codes		Building Category description	
C1		General Office	
C2		High Street Agency	
C3		General Retail	
C4		Large Non-Food Shop	
C5		Small Food Store	
C6		Large Food Store	
H1		Restaurant	
H2		Bar, Pub Or Licensed Club	
H3		Hotel	
H4		Cultural Activities	
H5		Entertainment Halls	
H6		Swimming Pool Centre	
H7		Fitness And Health Centre	
H8		Dry Sports And Leisure Facility	
S1		Covered Car Park	
S2		Public Buildings With Light Usage	
S3		Schools And Seasonal Public Buildings	
S4		University Campus	
S5		Clinic	
S6		Hospital - Clinical And Research	
S7		Long Term Residential	

S8	General Accommodation
S9	Emergency Services
S10	Laboratory Or Operating Theatre
W1	Public waiting or circulation
W2	Terminal
W3	Workshop
W4	Storage Facility
W5	Cold Storage